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ABSTRACT

A study examined whether language patterns found in English, which differed from those in Spanish, would have a significant effect on English as a second language (ESL) learners' comprehension while reading English text. Average fifth grade readers were randomly assigned to either an initial Spanish speaking group (N=18) or an initial English speaking group (N=18). Nine stories were developed for the study, three for each of three different language pattern categories: similar, moderately similar, and dissimilar. Measures included two categories: students' retelling scores, a rating scale designed to provide information on learners' perceptions of story difficulty; and four comprehension questions on each story that was read. Students also read each story orally, providing a miscue score. Students in both groups read three stories, one with each language pattern. On the retelling measures the lowest scores were found on stories that were most dissimilar from students' initial language. Oral reading errors increased as language pattern similarity decreased. Yet, on literal comprehension questions, students attained the highest scores on dissimilar passages. The results support the contention that texts violating readers' expectations about language patterns while reading can have disruptive effects. However, the fact that the comprehension question scores did not concur with the retelling scores implies that further investigation is needed. (HTH)

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EFFECTS OF ENGLISH/SPANISH LANGUAGE PATERN DIFFERENCES ON ESL LEARNERS' COMPREHENSION OF NGLISH TEXT

This study investigated the relation betwen language pattern differences and ESL learners' reading comprehenion. Specifically, it examined whether language patterns found in Engish, which differed from those in Spanish, have a significant effec on ESL learners' comprehension while reading English text. Theresearch question was based on the assumption that many elementary-ag ESL learners may not have mastered the use of English language pattens and thus would rely on their more automatized initial language patterns when attempting to comprehend English text. This possible lack of English language pattern knowledge was posited as a factor poterially affecting ESL learners' comprehension while reading English ext. Support for this assumption may be found in Au, Tharp, Crowell, Jordan, Speidel and Calkins (1982); DuBois (1979); Niessendanger an Birlem (1979); Gamez (1979); Chapman (1978); and Kaplan (1978). These researchers found that language competence and familiarity with Standard English has an effect on learners' comprehension when reading English text.

METHOD

Subjects

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The MacMillan Reading Test, Series R, Form A, Level 4, 1983, was used to select 36 average fifth grade readers. They were defined as readers performing within a grade equivalent range of 3.5 to 5.5 on total reading performance on the MacMillan Reading Test. Reading teacher recommendations were used to support test result information. All subjects were within an age range of 9 years and 5 months to 11 years and 5 months. Subjects were further selected on the basis of initial language. Group one (ESL) subjects' initial language was Spanish and group two (non-ESL) subjects' initial language was English. Group one subjects were screened to have Spanish as the dominant language spoken in the home. Also, a natural language sample was taken for the group one subjects. The natural language sample indicated that ESL subjects were generally average in oral Spanish ability. Specifically, 1 subject was rated below average, 15 were rated average and 2 were rated above average. Ratings were conducted by Maria Collier, a Spanish teacher whose initial language is Spanish.

Subjects were randomly selected and assigned to either Group 1 (inital Spanish speakers) or Group 2 (initial English speakers) from 2 pools of students - intitial Spanish speakers and initial English speakers who met the screening criteria for age, reading level range and grade placement. The 18 subjects in group 1 and 2 were randomly selected from potential subject pools of 34 and 42 students, respectively.

Instruments and Measures

Nine stories were developed for use in this study, three each

within three different language pattern categories. Story topics were determined to be relevant for both groups of subjects by a Spanish teacher who speaks Spanish as her initial language and by a pilot study. The three categories of language patterns (Similar, Moderately Similar and Dissimilar) were based on work by Stockwell, Bowen & Martin (1965) and were confirmed by a professor of Spanish. Similar patterns across English and Spanish included quantitative adjectives, most conjunctions, and some adverb patterns. Moderately Similar patterns included desscriptive adjectives, question patterns, some adverb patterns, the moral use of should, and reflexive pronouns, while Dissimilar patterns included object pronouns, verb forms using "do" and "does", the use of "one" other than numerically, the conjunction "but" to connect contrasting ideas, infinitives following prepositions, the subjunctive mood, and negatives. A validation of the patterns across the stories was performed by four individuals who speak Spanish as their initial language and who are fluent in English. Interrater agreement was .93.

Measures included students' retelling scores, as previously described (Propst & Baldauf, 1979), a rating scale designed to provide information on learners' perceptions of story difficulty, and four comprehension questions on each story that was read. Additionally, students read each story orally, thus providing a miscue score.

Procedures

Subjects in both groups read 3 stories, one each containing language pattern categories A, B and C and written about a different topic. Story content was parallel across language pattern categories.

The order in which language pattern categories were presented to subjects was determined by a Latin Square Design. Subjects were randomly assigned to one of six possible language pattern category orders. Prior to the experimental session, subjects observed a model and practiced a story retelling and marking a rating scale. Retellings, responses to questions and oral readings were audiotaped. Subjects were informed they would be asked to answer four questions after reading each story silently. The practice session involved modeling the experiment's requirements, by the investigator, on a story of similar content, difficulty level and length as the stories used in the study. Following the Modeling Procedure, each subject came individually to the researcher or research assistant and read the experimental stories. After reading each story, subjects retold the story, answered four comprehension questions, marked a rating scale and then read each story aloud.

Data Analysis

Retelling scores (percentages) were determined by comparing subjects' free recall protocols to an a priori list of idea units determined by two independent judges. Comprehension questions were scored by comparing subjects' responses to story content. The rating scale directionalities were determined within a 1-Easy to 5-Difficult range. Oral reading (word recognition) percentages were determined by dividing all errors made by subjects by the total number of words in the story read. Repeated measures Analysis of Variance (ANOVA), Pearson Product-Moment Correlations and Analysis of Covariance were used to test for significance across the three language pattern

categories.

RESULTS

Analysis of Variance (ANOVA, Table 1) for retellings and literal question responses showed there was a significant difference in comprehension between groups. Analysis of Covariance (ANCOVA, Table 2), which factored out ability, for literal question responses showed there was a significant difference in comprehension between groups, but only approached significance for the retelling measure. However, the expected result of comprehension differences across language pattern categories for group one (Spanish as their initial language) did not occur. That is, comprehension did not appear to decrease as language patterns became more dissimilar from Spanish.

There was also a significant difference in oral reading scores between groups one and two, but again there were no significant differences across language pattern categories for group one. There was, however, a slight decrease in oral reading (word recognition) scores across language pattern categories. This was as expected, with number of word recognition errors increasing as the stories' language patterns became more unfamiliar to students.

There were no significant differences between groups for group or language pattern category on the rating scale variable. There was a significant interaction between group and language pattern category for the rating scale. This indicates that differences for groups 1 and 2 showed an interactive effect on language pattern category B (Moderately Similar) stories and that stories in language pattern category B (Moderately Similar) were easiest for Spanish as their

initial language subjects to read. Group 1 subjects gave the highest (difficult) rating to language pattern category A (Similar) and the lowest (easy) rating to language pattern category B (Moderately Similar).

INSERT TABLES 1 AND 2 ABOUT HERE.

The results were not completely consistent with those initially expected. The findings supported the assumption that language pattern differences in English and Spanish significantly affect ESL learners' comprehension, as measured by literal questions. This was true, when the two groups were compared, but not within each language pattern category. In looking at how the groups performed, across language pattern categories, a difference in comprehension is observed that might suggest interference of initial language pattern knowledge on second language comprehension. However, when the specific language pattern categories are examined individually, this assumption is not supported.

DISCUSSION

Although some of the results on some of the measures fail to support the proposed assumptions of the study, it remains viable that many elementary-age ESL learners are less familiar with English language patterns than with their initial language patterns. This statement is consistent with earlier research which supports a relationship between learners' language development and reading skill (Au, Tharp, Crowell, Jordan, Speidel, & Calkins, 1982; Blachman, 1981;

Kaplan, 1978; Chapman, 1977; Ruddell, 1976). Given the mixed results of this study, however, further research is needed to support the contention that lack of English language pattern knowledge affects ESL learners' reading comprehension.

There are several possible explanations for this study not showing expected differences across language pattern categories. One is the lack of a reliable measure to screen elementary-age ESL learners' English language pattern knowledge. Further, since Spanish was the language spoken in the home, as determined by school records, a basic assumption was that initial Spanish speaking subjects lacked a well developed knowledge of English language patterns.

Although subjects were screened so that Spanish was their dominant language and was spoken in the home, subjects' immersion in an English-speaking environment (e.g., the influence of television, social English-speaking peer interaction, and the English-speaking school situation) could account for Spanish subjects' potentially well-developed knowledge of English language patterns. Also, Spanish as initial language subjects' reading level scores placed these subjects in the upper portion of ESL (Spanish) readers in the general ESL school population. The following explanations are given for group one (Spanish as their initial language) subjects' comprehension scores on the retelling measure.

Retelling Measure

The relation of learner attention with text comprehension has been suggested by several researchers (Linden & Wittrock, 1981; Samuels & Eisenberg, 1981; Holmes, 1965). Possibly, Spanish as their

initial language subjects may have attended less to stories containing language patterns from category A (Similar). This could be due to the similarity of the language patterns in category A stories to subjects' automatized initial language patterns. The lack of focused attention to content may have resulted in comprehension scores that were lower on stories in language pattern category A (Similar) than in language pattern category B (Moderately Similar).

Language pattern category B (Moderately Similar) stories, may have contained enough differences in language patterns, when compared to subjects initial language, that subjects were forced to consciously attend to information contained in the stories. More attention to story content may have caused the higher comprehension scores on stories in language pattern category B (Moderately Similar) when compared to comprehension scores on stories in language pattern category A (Similar).

Low comprehension scores on language pattern category C (Dissimilar) stories, support this study's initial hypothesis: subjects' lack of English language pattern knowledge negatively affects comprehension. This suggests that language patterns contained in stories in category C (Dissimilar) were so different from those known by Spanish as their initial language subjects, that no matter how slowly they read or how well they attended, the discordance in language patterns resulted in the lowest comprehension scores relative to the other two categories (Similar and Moderately Similar).

Support for the above explanations is found in O'Brian, (1984). His results indicate that texts that were similar did not receive higher comprehension scores than did texts that were less similar.

Although his study involved English as initial language readers reading disrupted text, there are apparent consistencies between conditions for readers in the O'Brian (1984) study and the one described here. The degree of language pattern similarity and dissimilarity contained in each story in the current study could be viewed as text disruption on the basis of reader expectation. Comparatively, readers in the O'Brian (1984) study expected certain text factors, e.g., correct spelling and language patterns. However, subjects in the O'Brian (1984) study were asked to read some texts with embedded errors, determined from students' errors who had previously read the texts. Thus, due to the presence of embedded errors some of the texts were disrupted when viewed from the perspective of reader expectations.

In this study, readers also seemed to have expectations. Group one subjects may have expected certain text factors, e.g., language patterns similar to their more familiar, automatized initial language while reading stories containing Moderately Similar and Dissimilar English language patterns. From this perspective, stories written in Moderately Similar and Dissimilar language pattern category conditions could be viewed by group one subjects as disrupted text in much the same way as the O'Brian (1984) study.

Literal Question Measure

Results on the question response measure differed somewhat from results on the retelling measure. There was a slight increase, in correct responses, from language pattern categories C (Dissimilar) through A (Similar), while the retelling measure scores increased in

the following manner: C (Dissimilar), A (Similar), B (Moderately Similar). This difference may be due to the measures themselves. Free recall is a different task than cued recall. In the free recall retelling task, subjects may have focused on story sequence to a greater extent.

This is supported by anecdotal observations which note that even when as few as three or four idea units were recalled, they were in proper sequence relative to order of occurrence in the story read. Further, the addition of personal information not found in the stories was given by subjects, e.g., "on my birthday one year", "when I saw the shuttle launch on television", "once when I when to the beach", etc. Correct responses to the literal comprehension questions could constitute single word responses, and the literal aspect of the questions may have influenced the results.

Rating Scale and Oral Reading Measures

Since subjects marked the rating scale following their responses to the two comprehension measures (retellings and comprehension questions), they may have been influenced by their perception of comprehension performance rather than their perception of the story's reading difficulty. Correlations of the rating scale to each of the comprehension measures supports this possibility, since choice indicating perception of story difficulty was significantly correlated with the two comprehension measures (retellings and comprehension questions). Students with high comprehension scores tended to perceive the reading selections as easy; the reverse was true for students with low scores on the retelling and question measures.

Word recognition errors for both groups showed the expected trend. English as their initial language subjects' percentage of words read correctly was similar across all language pattern categories, A) Similar, 98.9%; B) Moderately Similar, 99.8%; C) Dissimilar, 99.55%, while Spanish as their initial language subjects' percentages decreased as language patterns in the stories became more dissimilar from those found in their initial, native language: A) Similar, 98.5%; B) Moderately Similar, 95.4% and C) Dissimilar, 94.2%. However, although the trend was in the expected direction, differences in percentages for the Spanish as their initial language group across language pattern categories were not significant.

SUMMARY

The question of whether or not ESL students' initial language patterns cause reading problems is a debated and debatable question. This study, designed to explore students' reading comprehension across English texts that were written to reflect language patterns similar and different from Spanish-speaking ESL students' initial language, found mixed results.

On retelling measures the lowest scores were found on stories that were most dissimilar from students' initial language. Oral reading (word recognition errors) increased as language pattern similarity, between the stories and the subjects' initial language, decreased. Yet, on literal comprehension questions, students attained the highest scores on dissimilar passages.

Taken together, the results of this study can be viewed as supporting the contention that texts that violate readers'

expectations about language patterns while reading can have disruptive effects. However, the fact that the comprehension question scores did not concur with retelling scores implies that further investigation is needed, including examinations around the issue of the effect of measurement tools in studies of this nature and with such populations.

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TABLE 1

ANOVA

IDEA UNITS

	F	p
SPANISH VS. ENGLISH (Main Effect)	7.74	0.008**
LANGUAGE PATTERN (Main Effect)	2.05	0.136
LANGUAGE PATTERN X GROUP (Interaction)	0.55	0.580

COMPREHENSION QUESTIONS

	F	p
SPANISH VS. ENGLISH (Main Effect)	5.19	0.029*
LANGUAGE PATTERN (Main Effect)	0.15	0.864
LANGUAGE PATTERN X GROUP (Interaction)	0.25	0.775

RATING SCALE

	F	p
SPANISH VS. ENGLISH (Main Effect)	1.85	0.183
LANGUAGE PATTERN (Main Effect)	0.20	0.816
LANGUAGE PATTERN X GROUP (Interaction)	6.19	0.003**

ORAL READING

	F	p
SPANISH VS. ENGLISH (Main Effect)	8.22	0.007*
LANGUAGE PATTERN (Main Effect)	1.02	0.365
LANGUAGE PATTERN X GROUP (Interaction)	1.62	0.205

n = 18 Group 1, n = 18 Group 2
df = (1,34),(2,68)
* = .05
** = .01
*** = .001

TABLE 2

ANCOVA

IDEA UNITS

	F	p
SPANISH VS. ENGLISH	3.84	0.058*
1ST COVARIATE (Reading level)	0.78	0.382
2ND COVARIATE (Oral reading)	0.56	0.459
BOTH COVARIATES	0.68	0.515
LANGUAGE PATTERN (Main Effect)	1.94	0.152
LANGUAGE PATTERN X GROUP (Interaction)	0.72	0.486
2ND COVARIATE	0.79	0.378

COMPREHENSION QUESTIONS

	F	p
SPANISH VS. ENGLISH (Main Effect)	5.13	0.030
1ST COVARIATE (Reading Level)	0.29	0.592
2ND COVARIATE (Oral Reading)	0.73	0.398
BOTH COVARITES	0.51	0.605
LANGUAGE PATTERN (Main Effect)	0.17	0.845
LANGUAGE PATTERN X GROUP (Interaction)	0.30	0.739
2ND COVARIATE	0.16	0.689

n = 18 Group 1, n = 18 Group 2
df = (1,67),(2,67)
* = .05
** = .01
*** = .001